HIGH AVAILABILITY PLANNING AND SCHEDULING
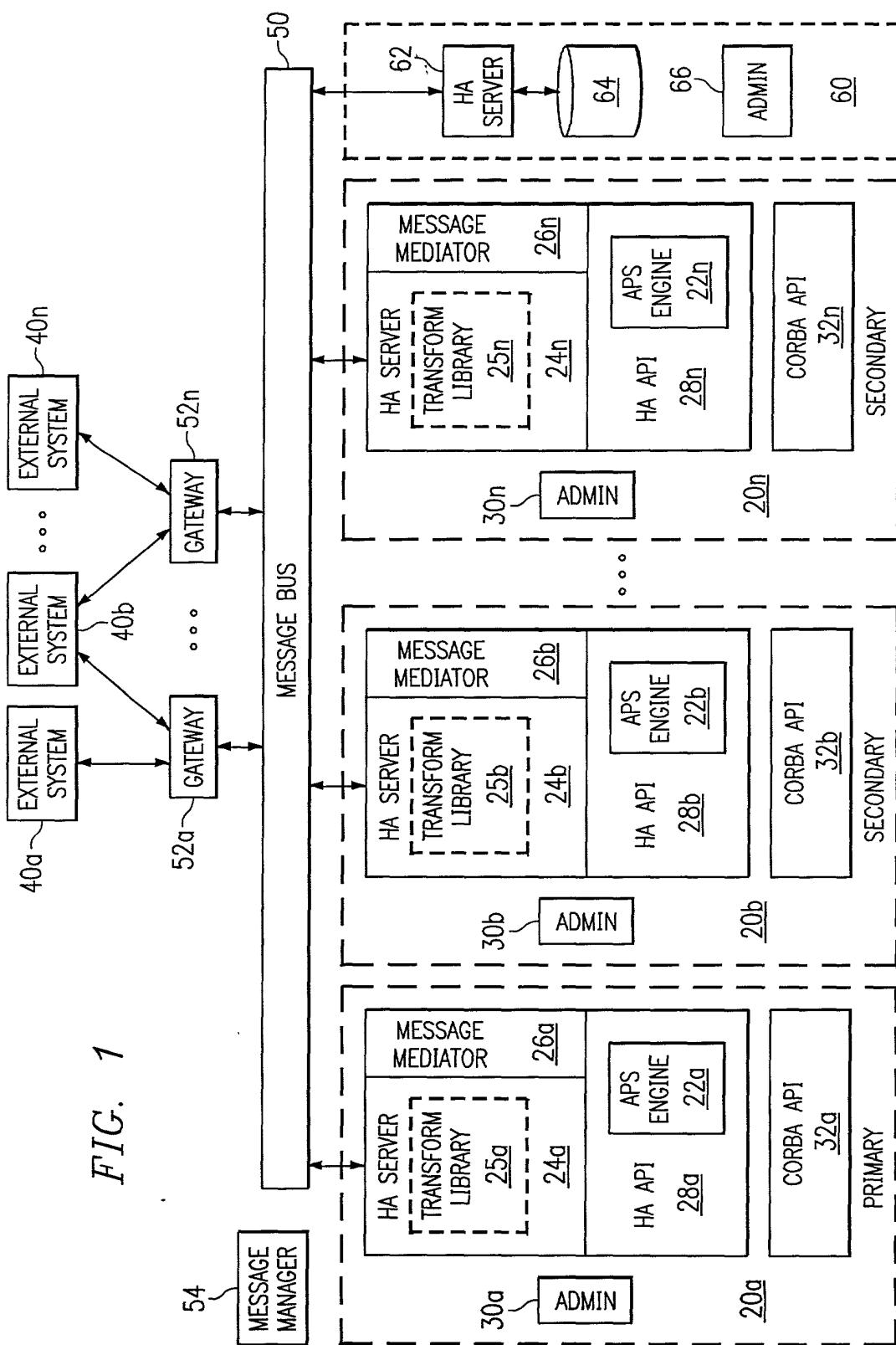Inventor(s): Subhasis (nmi) Ojha, et al.
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FIG. 1

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FIG. 2A

START

100 — ENTER ORDER IN EXTERNAL ORDERING SYSTEM AND COMMUNICATE TO A GATEWAY

102 — COMMUNICATE ORDER AS MESSAGE TO HA SERVER

104 — RECEIVE MESSAGE AT HA SERVER AND COMMUNICATE ACKNOWLEDGEMENT

— 110

106 — PARSE ORDER USING TRANSFORM LIBRARY

108 — COMMUNICATE MESSAGE AS A REQUEST TO MESSAGE MEDIATOR

112 — IDENTIFY META DATA IN REQUEST

114 — ASSIGN A REQUEST ID AND COMMUNICATE REQUEST TO HA API

116 — TRANSLATE THE REQUEST FOR PROCESSING BY DF ENGINE

118 — PROCESS REQUEST USING DF ENGINE AND GENERATE A PROMISE

120 — COMMUNICATE RESPONSES REPRESENTING PROMISE TO MESSAGE MEDIATOR

A

TO FIG. 2B

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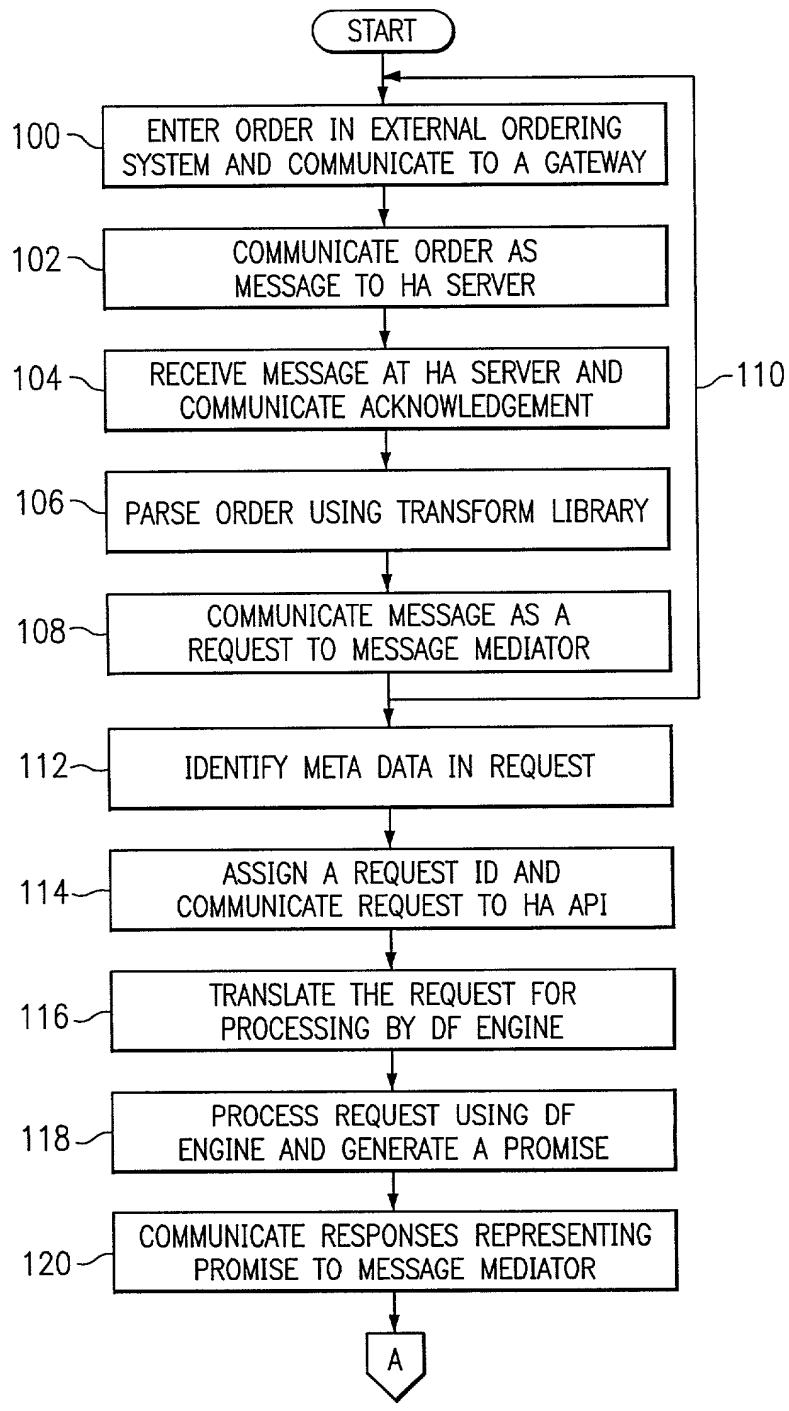Attorney's Docket: 020431.0864
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FIG. 2B

FROM FIG. 2A

A

REMOVE REQUEST ID FROM RESPONSE AND
ADD A TRANSACTION ID AND TIME STAMP — 122

COMMUNICATE RESPONSE TO HA SERVER — 124

TRANSFORM RESPONSE AS APPROPRIATE
USING TRANSFORM LIBRARY — 126

| COMMUNICATE PROMISE TO GATEWAY | COMMUNICATE REPLICATION MESSAGE TO SECONDARY HA SYSTEMS | COMMUNICATE PERSISTENCE MESSAGE TO DATABASE SYSTEM |

128a   128b   130b   128c

| COMMUNICATE PROMISE TO EXTERNAL ORDERING SYSTEM | PROCESS REPLICATION MESSAGE TO UPDATE STATE OF SECONDARY DF ENGINES | STORE REQUEST, PROMISE AND REPLICATION INFORMATION IN DATABASE |

130a   130c

END

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START   160

150 — ENTER ORDER IN EXTERNAL ORDERING SYSTEM AND COMMUNICATE TO A GATEWAY

152 — COMMUNICATE ORDER AS MESSAGE TO HA SERVER

154 — RECEIVE MESSAGE AT HA SERVER AND COMMUNICATE ACKNOWLEDGEMENT

156 — PARSE ORDER USING TRANSFORM LIBRARY

158 — COMMUNICATE MESSAGE AS A REQUEST TO MESSAGE MEDIATOR

162 — IDENTIFY META DATA IN REQUEST

164 — ASSIGN A REQUEST ID AND COMMUNICATE REQUEST TO HA API

166 — TRANSLATE THE REQUEST FOR PROCESSING BY DF ENGINE

168 — PROCESS REQUEST USING DF ENGINE AND GENERATE A RESPONSE

FIG. 3

COMMUNICATE RESPONSE TO MESSAGE MEDIATOR — 170

REMOVE REQUEST ID FROM RESPONSE AND ADD A TRANSACTION ID AND TIME STAMP — 172

COMMUNICATE RESPONSE TO HA SERVER — 174

TRANSFORM RESPONSE AS APPROPRIATE USING TRANSFORM LIBRARY — 176

COMMUNICATE PROMISE TO A GATEWAY — 178
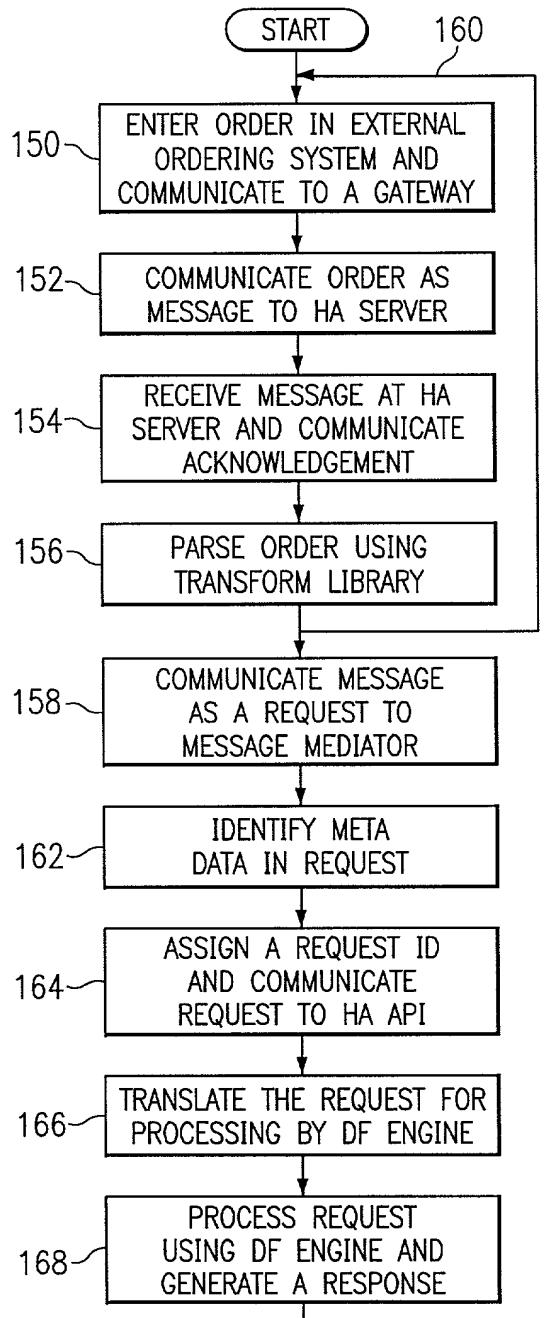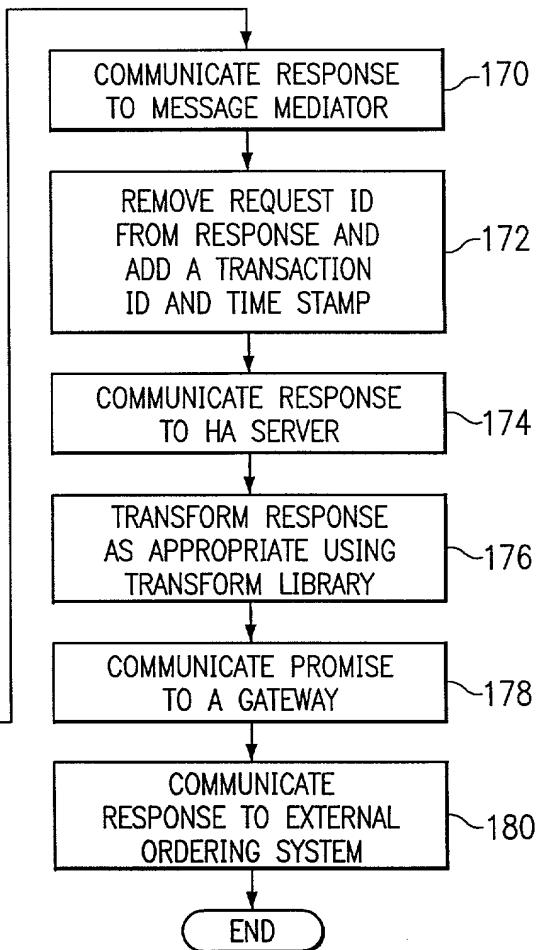
COMMUNICATE RESPONSE TO EXTERNAL ORDERING SYSTEM — 180

END

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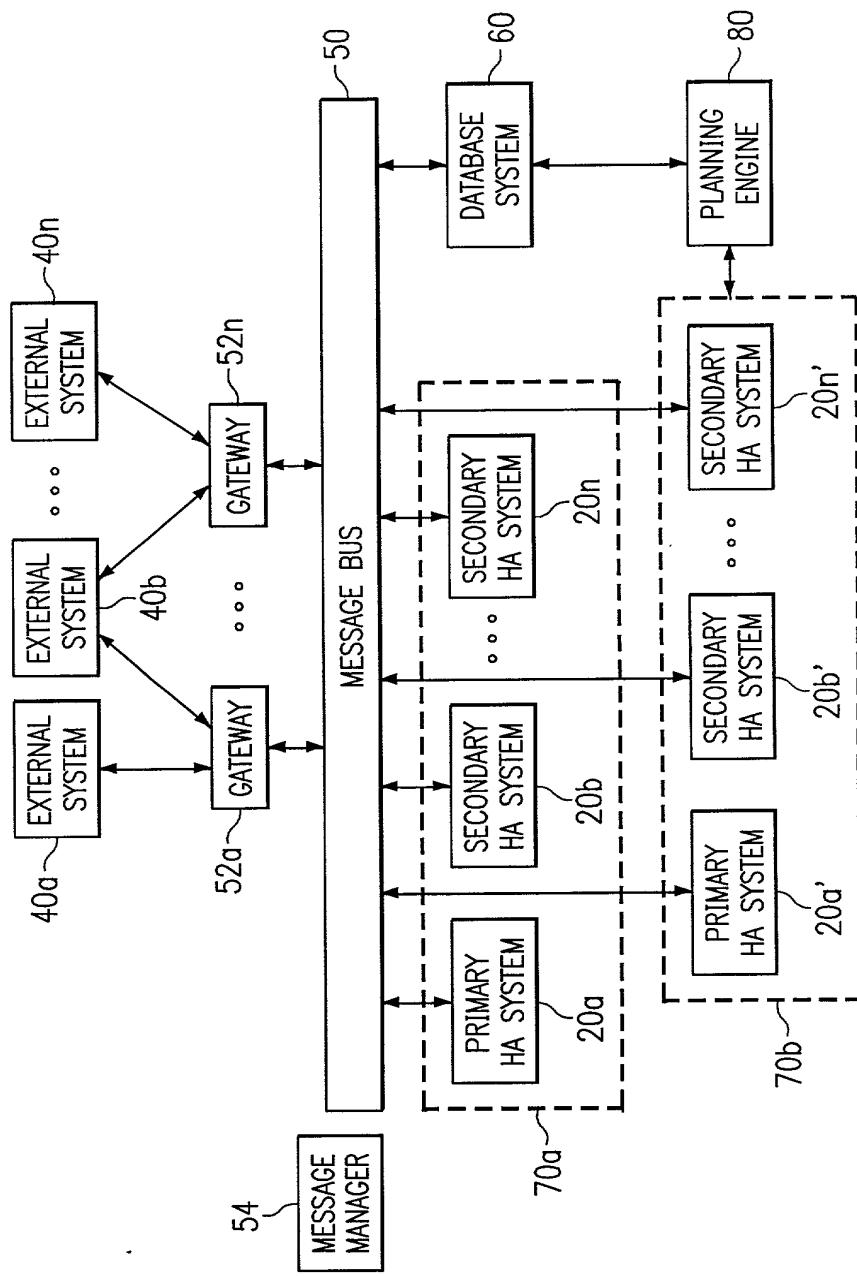Attorney's Docket: 020431.0864
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FIG. 4

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FIG. 5

(START)

200 — EXTRACT ATP SUPPLY INFORMATION FROM DATABASE SYSTEM AND STORE EXTRACTION TIME

202 — DETERMINE DIFFERENCE BETWEEN FORECASTED DEMAND AND ACTUAL DEMAND

204 — UPDATE ATP SUPPLY INFORMATION

206 — COMMUNICATE UPDATED ATP SUPPLY INFORMATION TO REPLACEMENT HA SYSTEMS

208 — RECEIVE SYNCHRONIZATION REQUEST FROM REPLACEMENT PRIMARY HA SYSTEM

210 — DETERMINE PRODUCT ORDERS PROCESSED AFTER EXTRACTION

212 — COMMUNICATE POST-EXTRACTION PRODUCT ORDERS TO REPLACEMENT PRIMARY HA SYSTEM

214 — PROCESS POST-EXTRACTION PRODUCT ORDERS AND UPDATE ATP SUPPLY INFORMATION STORED IN REPLACEMENT PRIMARY HA SYSTEM

216 — INSTRUCT OPERATING HA SYSTEMS TO TERMINATE PROCESSING

218 — GENERATE STOP RECORD INDICATING LAST PROCESSED ORDER AND TERMINATE OPERATION OF OPERATING HA SYSTEMS

220 — BEGIN OPERATION OF REPLACEMENT HA SYSTEMS

222 — PROCESS ANY REMAINING PRE-TERMINATION PRODUCT ORDERS AND UPDATE ATP SUPPLY INFORMATION STORED IN REPLACEMENT HA SYSTEMS

(END)